

Rural Informatization in China

Christine Zhen-Wei Qiang

Asheeta Bhavnani

Nagy K. Hanna

Kaoru Kimura

Randeep Sudan



Contents

Foreword	v
1. Introduction	1
Notes.....	2
2. Development of China's Rural Information Infrastructure	3
Fixed Line Telephony.....	6
Mobile Telephony	6
Radio and Television.....	7
Internet	7
Notes.....	10
3. Rural Informatization Initiatives and Organizational Models	11
Key Rural <i>Informatization</i> Actors and Initiatives.....	11
Organizational Models for Rural <i>Informatization</i>	14
Notes.....	21
4. Lessons from International Experiences	22
Government- and Donor-driven Initiatives and Sustainability.....	22
Private Sector Participation	24
The Appeal of the Franchise Model	25
Hybrid Organizational Models.....	28
5. Challenges for Rural Informatization in China	30
Lack of a Coherent Strategy.....	30
Weak Coordination across Ministries and Integration at the Provincial Level.....	30
Unsustainable Business Models and Over-reliance on Government Financing	32
Lack of Demand-Driven, Locally Relevant Information Resources.....	32
Low Levels of Public Awareness and Capacity Building.....	33
Weak Links to Domestic ICT Industry and Research and Development for Rural Applications	34
Lack of Systematic Learning and Impact Evaluation.....	34
6. Recommendations	35
Formulate a Comprehensive and Coherent Strategy.....	35
Support Innovative Business Models.....	36
Consolidate and Share Resources.....	37
Raise Public Awareness and Build Capacity.....	38
Develop Intermediary Institutions and Networks	38
Ensure Learning, Monitoring, and Evaluation	39

7. Conclusions	40
References	42
Appendixes	45
Appendix 1. Central Government Strategies and Initiatives for Rural <i>Informatization</i>	45
Notes:.....	51
Appendix 2. Analysis of Eighteen Pilot Projects in China.....	52
Appendix 3. Impact Evaluation: Rationale, Definitions and Framework for Rural <i>Informatization</i> Pilots.....	54
Note	58
Appendix 4. A Framework for Evaluation of Eighteen-Pilot Projects	59
Tables	
Table 2.1. Information Infrastructure Coverage in China, 2007.....	6
Table 3.1. Rural <i>Informatization</i> Initiatives by Central Ministries and Agencies.....	11
Table 3.2. Rural <i>Informatization</i> Problems and Attempted Solutions.....	15
Table A.3.1. A Framework to Evaluate Project Impact.....	57
Table A.3.2. Indicators to Assess Project Impact.....	58
Figures	
Figure 2.1. Ownership of Television in Urban and Rural Households, 1990–2006.....	7
Figure 2.2. Internet Penetration in Urban and Rural China, 2005–07.....	8
Figure 2.3. Personal Computer Ownership in Urban and Rural Households, 1999– 2006.....	9
Figure 2.4. Place of Internet Access, 2007.....	9
Figure 3.1. Key Elements of Rural <i>Informatization</i> Pilot Initiatives	15
Figure 5.1. Population and Investment Segmentation in China	31
Figure A.3.1. Developing Performance and Impact Indicators.....	56
Boxes	
Box 2.1. Central Government Strategies for Rural <i>Informatization</i> , 2001 to Present.....	5
Box 3.1. Government Model	16
Box 3.2. Telecommunications Provider Model.....	17
Box 3.3. Professional Association/Cooperative Model.....	18
Box 3.4. Franchise/Entrepreneurial Model.....	19
Box 3.5. Private Sector Model.....	20
Box 4.1. Public Programs of Access Centers in Chile	23
Box 4.2. E-Choupal: An Evolving Infrastructure for Rural Transformation	25
Box 4.3. CDI: A Social Franchise Targeting Disadvantaged Urban Youth.....	28
Box 4.4. Gyandoot Program in India	29